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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,542	12/19/2005	Toyokazu Mori	050793	9383
23850 7590 02/02/2011 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. 4th Floor WASHINGTON, DC 20005				
EXAMINER				
GRANT, ALVIN J				
ART UNIT		PAPER NUMBER		
3723				
MAIL DATE		DELIVERY MODE		
02/02/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/561,542

**Applicant(s)**

MORI ET AL.

**Examiner**

ALVIN J. GRANT

**Art Unit**

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-942)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedemann et al. 5,448,792 in view of Chan US 2008/0271271.

Wiedemann et al. discloses an electric toothbrush in which brushing is enabled by back-and-forth linear movement of a tufted portion in a longitudinal direction of a replaceable brush, wherein the distance (mm) of movement of the tufted portion is set in the range of 0.5 - 3mm, the frequency (times) of back-and-forth motion of the tufted portion per minute is set in the range of 2000 - 11,000, and the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute is set in the range of 5000 - 7000 **(2:9-16; 2:42-50; and 3:37-42)**; and wherein an inherently DC electric motor is used as means for moving the tufted portion.

Wiedemann et al. does not specifically disclose the longitudinal direction is the *only* direction in which the tufted portion moves. Chan teaches (in the embodiment shown in Fig. 6) that the tufted portion of toothbrush may be made to move in a longitudinal direction only as a matter of preference. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made Wiedemann et

al.'s apparatus to have the tufted portion move in a longitudinal direction only as taught by Chan as a matter of preference.

**Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedemann et al. in view of Chan and in further view of Blaustein et al. US 2003/0084525.

Wiedemann et al. as modified, is described above. The modified Wiedemann et al. does not specifically disclose filaments in which the tip portions of at least 30% or more of all tufted filaments are split into a plurality of portions. Blaustein et al. discloses a toothbrush in which the filaments in which the tip portions of at least 30% or more of all tufted filaments are split into a plurality of portions so as to enhance the effectiveness of the toothbrush. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made Wiedemann et al.'s toothbrush to have the filaments in which the tip portions of at least 30% or more of all tufted filaments are split into a plurality of portions as taught by Blaustein et al. so as to enhance the effectiveness of the toothbrush.

### ***Response to Arguments***

3. Applicant's arguments filed 11/15/10 have been fully considered but they are not persuasive.
4. Applicant's argument that US Patent No. 5,448,792 (to Wiedemann et al.) does not disclose the tufted portion longitudinal direction only is moot in view of new grounds for rejection in view of US 2008/0271271 (to Chan).

5. Applicant's arguments that Wiedemann et al. does not satisfy the requirements of claim 1, as amended, is not convincing. When the amplitude is between 0.1 mm and 5 mm and a frequency (identified as 8) which could be higher than 30Hz (e.g., abstract) the requirements of claim 1 is satisfied as follows: When Applicant's formula  $y=ax+b$  where  $a=-3000$ ,  $10,000 \leq b \leq 12,500$ ,  $x>0$ , the range of 0.1 - 5 mm satisfies the requirement of 0.5 - 3 mm; and more specifically when the amplitude is 3mm,  $b=11,024$  and the frequency is 33.34 Hz. (2024 cycles/min.) which satisfies the 2000-5000, and the frequency times the amplitude 6072 which satisfies the range 5000-7000.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALVIN J. GRANT whose telephone number is (571)272-4484. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. J. G./  
Examiner, Art Unit 3723

/Joseph J. Hail, III/  
Supervisory Patent Examiner, Art Unit 3723